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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,173	12/08/2003	Peter Dwight Spohn	1035-O4239	2894

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EXAMINER

LEUNG, PHILIP H

ART UNIT PAPER NUMBER

3742

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/730,173

Applicant(s)

SPOHN ET AL.

Examiner

Philip H. Leung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21, 34, 35 and 40-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21, 34, 35 and 40-55 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-21, 34, 35 and 40-55 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The new limitation "comprising a material selected from the group consisting of polymer fibers, graphite fibers, ceramic fibers and glass fibers" in claims 1, 34, 35, 40 and 45 do not have support in the original specification. More, particularly, the specification only have the term "glass fibers but no graphite fibers nor ceramic fibers. Support for these materials in the original disclosure needs to be set forth or the new matter must be cancelled. Furthermore, it appears that the limitation "comprising material from the group consisting of polymer fibers, graphite fibers, ceramic fibers and glass fibers" in claim 1 should be "comprising a material selected from the group consisting of polymer fibers, graphite fibers, ceramic fibers and glass fibers" instead (as in claims 34, 35, 40 and 45). Correction is required.

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3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-9, 11-14, 16-21, 40-49 and 51-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson (US 2,839,651) (previously cited), in view of Green et al (US 5,951,895) (newly cited), and further in view of Guiles et al (US 6,056,844) or Stark et al (US 2002/0113066 A1) (both previously cited).

Erickson shows a heating belt 10 formed of rubber with conductive members 11 embedded in the rubber materials so that it is inductively heated by heating unit 20 having an induction heating coil 25 (see Figures 3 and 4 and col. 2, line 33 – col. 3, line 46). It does not show the use of fibers in the rubber belt. Green shows a cooking belt 5 for transporting food in a cooking machine. The belt is made of a flexible plastic material and can be reinforced with glass fibers or polymer fibers or a stainless steel mesh (see Figure 1 and col. 2, line 58 – col. 3, line 24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Erickson to use glass fibers or polymer fibers in the flexible belt material in order to reinforce the belt so that the belt can withstand the strains in a heating enclosure, such as a cooking chamber, in view of the teaching of Green. Furthermore, Erickson uses conductive cables 11 or wires (col. 4, lines 59-66) instead of particles as the inductively heatable material with the polymer material as the belt composite material. Guiles shows an induction heating device using a susceptor material comprising a polymer material mixed with induction heatable particles including materials as shown in Figures 3 and 5 (see Figures 1, 3 and 5 and col. 2, line

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41 – col. 3, line 27). Stark also shows an induction heating device using inductively heatable particles including materials, such as, SrF powders, in a polymer material as an induction susceptor (see Figures 1, 3, 5, 6 and paragraphs [0016], [0019]- [0022] and [0027]-[0034]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Erickson to use inductively heatable particles with the polymer material of the belt for better heating temperature control and more uniform heating result, in view of the teaching of Guiles or Stark. The exact material of the particles and composition of the belt susceptor material would have been a matter of engineering variations of all the examples shown in Guiles or Stark following their teaching (see Guiles, col. 41 – col. 2, line 19 and Stark, paragraphs [007] – [0018]). In regard to claims 19-21, 41-44, 47 and 48, the use of the induction heating belt for any heating purposes including cooking food or sealing articles would have been a matter of engineering application as all these heating processes by induction heating are well known in the art.

5. Claims 10, 15, 34, 35 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Erickson (US 2,839,651), in view of Green et al (US 5,951,895), and Guiles et al (US 6,056,844) or Stark et al (US 2002/0113066 A1), as applied to claims 1-9, 11-14, 16-21 and 40-49 and 51-55 above, and further in view of Kinouchi et al (US 6,087,641) (previously cited).

Erickson as modified above shows the belt is formed of rubber. It does not specifically state that the rubber is of silicone rubber. Kinouchi shows an induction heating device using an inductively heatable belt formed of a ferromagnetic metallic material with a silicone rubber coating (see Figures 1 and 2 and col. 4, line 33 – col. 5, line 11). It would have been obvious to

one having ordinary skill in the art at the time the invention was made to modify Erickson as modified above to use any type of rubber material as the cover layer of the belt including silicone rubber for better adhesion prevention, in view of the teaching of Kinouchi.

6. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip H. Leung whose telephone number is (571) 272-4782.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on (571)-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Philip H Leung  
Primary Examiner  
Art Unit 3742

PLeung/pl  
12-21-2006